

2016 ANNUAL REPORT:

A SUMMARY OF MS4 PERMIT YEAR 2 PROGRESS



Chesterfield County, Virginia
VSMP Permit No. VA0088609

Prepared March 2017
Department of Environmental Engineering
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List of Abbreviations

BI	Department of Building Inspections
BMP	Best Management Practices
BUILDING & GROUNDS	Chesterfield County General Services - Building and Grounds Maintenance Division
CIP	Capital Improvement Plan
DEE	Chesterfield County Department of Environmental Engineering
DEQ	Virginia Department of Environmental Quality
DRAINAGE	Chesterfield County Department of Environmental Engineering - Watershed Management Division Drainage Section
DMR	Discharge Monitoring Reports
ESC	Erosion and Sediment Control
EXTENSION	Chesterfield County Cooperative Extension
FIRE & EMS	Chesterfield County Fire & Emergency Medical Services
FIRE MARSHAL	Chesterfield County Fire & Emergency Medical Services - Fire Marshal's Office
FLEET	Chesterfield County General Services - Fleet Management Division
GSEN	Chesterfield County General Services - Environmental Division
HPMF	High Priority Municipal Facility
IDID	Illicit Discharges and Improper Disposal
IHRR	Industrial & High Risk Runoff
IST	Chesterfield County Information Systems Technology
LDP	Land Disturbance Permit
LPC	Chesterfield County Learning and Performance Center
MS4	Municipal Separate Storm Sewer System
MS4 PROGRAM PLAN	Municipal Separate Storm Sewer System Program Plan
NMP	Nutrient Management Plan
NOV	Notice of Violation
PARKS & RECREATION	Chesterfield County Department of Parks and Recreation
PLAN	Chesapeake Bay Total Maximum Daily Load Action Plan
POLICE	Chesterfield County Police Department
PY1	Permit Year 1
PY2	Permit Year 2
PY3	Permit Year 3
QA/QC	Quality Assurance/ Quality Control



List of Abbreviations (Cont.)

ROW	Chesterfield County Department of Utilities - Right of Way Office
SCHOOLS	Chesterfield County Public Schools
SOP	Standard Operating Procedure(s)
SWIFT	Stormwater Information Tracker
SWM/BMP	Stormwater Management Facilities – Best Management Practices
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UTILITIES	Chesterfield County Department of Utilities
VDOT	Virginia Department of Transportation
VSMP	Virginia Stormwater Management Program



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Section 1. Background Information

a) The Permittee and Permit Number

Permittee: Chesterfield County
Permit Number: VA0088609

b) Modifications to the MS4 Program Plan

MS4 Program Plan modifications and updates have been documented in the MS4 Program Plan. The most recent version of the MS4 Program Plan can be found on the county website at <http://www.chesterfield.gov/content2.aspx?id=2849>.

c) Reporting Dates

The reporting dates for the *2016 Annual Report* are January 1st, 2016 through December 31st, 2016.



d) Certification as per Part II.K.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Scott B. Smedley, P.E.
Department of Environmental Engineering, Director

3/15/17

Date



Dr. Joseph P. Casey
County Administrator

3/16/17

Date



Section 2. Stormwater Management Implementation

Part I.B.1. Planning

SUMMARY OF IMPLEMENTATION

The purpose of this program is to provide for a Stormwater CIP identifying projects within Chesterfield County for implementation during the term of the MS4 permit. The Stormwater CIP includes cost-benefit analysis and a tentative schedule for project implementation. DEE updated this plan to reflect modifications and progress toward completion of projects in PY2. An updated copy of the completed plan and table of projects can be found on DEE's website at <http://www.chesterfield.gov/stormwatercip/>.

PROGRAM EVALUATION

The Planning component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvements in PY3 include evaluating documentation standardization needs, evaluating methods for tracking information and ensuring compliance with the requirements of this component as the projects outlined in the Stormwater CIP are implemented.



Part I.B.2.a) Construction Site Runoff and Post Construction Runoff from Areas of New Development and Development on Prior Developed Lands

SUMMARY OF IMPLEMENTATION

The purpose of this component is to implement programs to reduce the amount of sediment generated from construction sites, reduce the off-site transport of sediment and construction-related chemicals to the MS4, and reduce the post-developed pollutant loading. In PY2, DEE continued implementing programs within the Development Management Division, ensuring the existing program objectives aligned with the state permit requirements. The appropriate staff obtained new VSMP certifications and/or maintained ESC certifications. DEE maintained a certified stormwater management program administrator, plan reviewers and inspectors on staff during PY2. DEE issued 137 LDPs for a total of 852 disturbed acres, and BI issued 1,301 single-family dwelling building permits for a total of 149 disturbed acres. In PY2, 26,890 ESC inspections and 2,427 VSMP inspections were performed by DEE and BI. From those inspections, the following were issued: 92 notices to comply, six (6) notices of violation, and four (4) civil penalties.

SPECIFIC REPORTING REQUIREMENTS

- Each annual report shall contain the number of regulated land disturbing activities approved and the total number of acres disturbed.

Table 1. Land Disturbance and Single-Family Residence Permits Issued and the Associated Disturbed Acres in PY2

<u>LDP</u>	<u>Disturbed Acres</u>	<u>Single-Family Residence</u>	<u>Disturbed Acres</u>
137	852	1,301	149



- Each annual report shall contain the number of land disturbing activity inspections conducted and the number and type of each enforcement action taken.

Table 2. Land Disturbance Activity Inspections and Number and Type of Enforcement Actions in PY2

<u>2016</u>	<u>Inspections</u>	<u>Notices to Comply</u>	<u>Notices of Violation</u>	<u>Civil Penalties Issued</u>
ESC	26,890	92	6	4
VSMP	2,427			

- Each annual report shall include a summary of actions taken by the permittee to implement Part I.B.2.a)1) and 2) of this state permit.

In PY2, DEE, in conjunction with IST, continued planning an update of the county tracking database for construction and development activities to include newly approved SWM/BMP types and pollutant removal efficiencies. The county also continued development of an enterprise land management database to replace individual departmental tracking databases. This integrated system is being designed to incorporate all departments involved in land management and allow for the incorporation of up-to-date technology to include streamlining and improving field inspections and plans review processes.

PROGRAM EVALUATION

The Construction/Post-Construction Runoff component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include evaluating documentation standardization needs, identifying QA/QC modification needs and evaluating methods for tracking information. Additional recommendations include evaluating potential opportunities for increased coordination efforts.



Part I.B.2.b) Retrofitting on Prior Developed Lands

SUMMARY OF IMPLEMENTATION

The purpose of this component is to document the county's progress to manage, improve and maintain existing stormwater infrastructure to ensure the integrity of the MS4. Five (5) projects outlined in the Stormwater CIP will be completed within 54 months of the effective date of the state permit. At the time of this report, all five (5) projects selected for implementation will serve to meet the requirements of Part I.D. of the state permit. During PY2, two (2) projects were completed, two (2) projects were still under construction, and one (1) project was awaiting bid award. All projects should be completed in PY3. These projects are described in further detail in the Chesapeake Bay TMDL Action Plan draft listed on the county website.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall include a status update for those projects for which implementation began during the reporting period.**

Table 3. Project Construction Status Updates

<u>Project</u>	<u>PY2 Status</u>	<u>Summary</u>
Regional Stormwater Facility - LTC 20/25	Under Construction	Further information is provided in the Chesapeake Bay TMDL Action Plan draft located on the county website.
Mid-Lothian Mines Park Stream Restoration	Completed Construction	
Wrens Nest Stream Restoration	Completed Construction	
Proctor's Creek WWTP Outfall Retrofits	Under Construction	
James River High School BMP Retrofits	Awaiting Bid Award	

PROGRAM EVALUATION

The Retrofitting on Prior Developed Lands component was evaluated for effectiveness through DEE's internal review. Recommendations for improvement in PY3 include evaluating documentation standardization needs, evaluating methods for tracking information and ensuring compliance with the requirements of this component as the Chesapeake Bay TMDL Action Plan is implemented.



Part I.B.2.c) Roadways

SUMMARY OF IMPLEMENTATION

The purpose of this component is to develop programs to maintain county owned or operated roadways and parking lots in a manner to minimize the release of pollutants from maintenance activities to waters and other natural resources. In PY2, the roadways maintenance practices of county owned or operated roadways continued to align with the state permit requirements. Approximately 1% of the vehicle transportation infrastructure within the county, to include some local roads, connectors, and parking lots, is maintained by county staff or contractors. A list of permittee maintained roads, streets and parking lots was updated through geospatial analysis and reviewed for accuracy. The number of miles of roadways treated by BMPs and not treated by BMPs was characterized in acres treated as most roadways and parking lots maintained by the county are not on streets. The list of roadways and acres treated by BMPs continues to be refined as the stormwater asset inventory and Structural and Source Control Tracking are improved. In PY2, maintenance continued to be performed by Building & Grounds, Parks & Recreation, Fleet and contractors. Practices from multiple departments during road, street and parking lot maintenance continued to be documented to establish needs for written protocols. Materials utilized for deicing and sanding activities continued to be stored indoors or under shelter. In PY3, DEE written protocols for roadway maintenance activities will be developed by appropriate personnel.

PROGRAM EVALUATION

The Roadways component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include evaluating documentation standardization needs and opportunities for increased coordination efforts. Additional recommendations include ensuring the development and implementation of written protocols as required in Part I.B.2.c) of the permit.



Part I.B.2.d) Pesticide, Herbicide and Fertilizer Application

SUMMARY OF IMPLEMENTATION

The purpose of this component is to ensure that county staff employs the appropriate methods of pesticide, herbicide and fertilizer application and storage with the goal of reducing pollutant discharge to the MS4. In PY2, pesticide, herbicide and fertilizer application practices at county facilities continued to align with the state permit requirements. The list of all known permittee lands to which nutrients were applied to a contiguous area of more than one acre was updated. In PY2, the list identified 47 individual parcels with a total of 208 acres that require nutrient management plans per the requirements of Part I.B.2.d). A contractor was employed to coordinate with Parks & Recreation to develop and implement NMPs that were completed in December for a total of 51.74 acres of NMP coverage. The county continued to employ good housekeeping and pollution prevention measures through countywide operational controls detailing pesticide and herbicide application and storage BMPs. Multiple departments within the county also have department specific SOPs and practices for cleaning, maintaining and inspecting storage equipment and stormwater facility or infrastructure application avoidance. There were no identified needs for integrated pest management plans in PY2.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall report on compliance with the turf and landscape nutrient management plan implementation schedule and include a list of the permittee's properties for which turf and landscape nutrient management plans have been implemented during the reporting year and the cumulative total of acreage under turf and landscape nutrient management plans.**

The state permit requires development and implementation of no less than 15% of all identified acres to be covered by turf and nutrient management plans within 24 months of the effective of the permit. In PY2, 24.8% of the identified contiguous acres receiving nutrient application were covered under nutrient management plans.

Table 4. Permittee Properties Covered Under Turf and Landscape Nutrient Management Plans as of PY2

<u>Property</u>	<u>Address</u>	<u>Acreage</u>
Daniel Park	6600 Whitepine Rd	31.62
Clover Hill Complex	17701 Genito Rd	20.12
	Total Acreage of NMPs	51.74



- **Each annual report shall include the number of acres managed under Integrated Pest Management Plans**

Based on current application practices, there have been no identified needs for integrated pest management plans in PY2.

PROGRAM EVALUATION

The Pesticide, Herbicide, and Fertilizer Application component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include evaluating documentation standardization needs and identifying QA/QC modification needs. Additional recommendations include evaluating opportunities for increased coordination efforts.



Part I.B.2.e) Illicit Discharges and Improper Disposal

SUMMARY OF IMPLEMENTATION

The purpose of this program is to minimize the occurrence of IDIDs to the MS4. In PY2, DEE continued to implement the IDID program, ensuring that existing program objectives aligned with the state permit requirements. DEE responded to 73 reports of illicit discharges and 38 reports of improper disposal, for a total of 111 incidents. In all incidents, the illicit discharge or improper disposal was eliminated or referred to the appropriate agency for enforcement. In PY2, 14 NOVs and 5 notices of non-compliance were issued by DEE as a result of illicit discharge and improper disposal responses. Records of response in PY2 continue to be maintained on file. Utilities continued to implement a sanitary sewer inspection program to minimize infiltration to the sanitary sewer system by conducting 141,938 linear feet of sewer line inspections and performing maintenance where necessary. To reduce the discharge of floatables to the MS4, GSEN continued to implement its anti-litter program, collecting 203,340 pounds of litter. Additionally, GSEN continued to operate its two convenience centers in the county to provide services to residents for proper disposal of a variety of household, yard, and automotive wastes.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall include a list of illicit discharges identified, the source, a description of follow-up activities and whether the illicit discharge has been eliminated.**

Please refer to Appendix B.1 *“List of Illicit Discharges and Improper Disposal Reports Responded to in PY2”*.



- Each annual report shall include the amount of linear feet of sanitary sewer inspected during the reporting year.

Table 5. Sanitary Sewer Inspections in PY2

<u>2016</u>	<u>Linear Feet of Sanitary Sewer Inspected</u>
1st Quarter	40,403
2nd Quarter	26,154
3rd Quarter	59,878
4th Quarter	15,503
Total Inspected	141,938

PROGRAM EVALUATION

The IDID component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include evaluating documentation standardization needs, identifying QA/QC modification needs, and evaluating potential opportunities for increased coordination efforts.



Part I.B.2.f) Spill Prevention and Response

SUMMARY OF IMPLEMENTATION

The purpose of this program is to coordinate with Fire & EMS and other county departments to prevent, contain, and respond to spills that may discharge into the MS4. In PY2, DEE continued its spill prevention and response program by ensuring that existing program objectives aligned with the state permit requirements. DEE staff coordinated with personnel from multiple county agencies during the reporting year to homogenize notification procedures for spills and illicit discharges. In PY2, county agencies responded to 19 spills, in which measures were put in place to prevent discharges to and from the MS4. Incidents that DEE responded to in PY2 are tracked in the IDID database along with incidents responded to as defined in Part I.B.2.e) of the state permit. Additionally, Fire & EMS personnel responded to multiple incidents during PY2 involving fluid releases from vehicle crashes not affecting the MS4. In those cases, absorbents were applied to prevent the spread of the fluids and cleanup was conducted as required. Detailed reports of each incident Fire & EMS responded to are archived and available for review with the Fire Marshal's office.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall include a list of spills, the source (identified to the best of the permittee's ability), and a description of follow-up activities taken.**

Table 6. Spill Responses in PY2

<u>Date</u>	<u>Site Address</u>	<u>Source of Spill</u>	<u>Follow-Up Activities</u>
01/18/2016	231 E. Hundred Rd	Hydraulic equipment failure	Fire & EMS Response, DEE Response, Cleanup by Contractor
02/05/2016	6550 Iron Bridge Rd	Punctured saddle tank	Fire & EMS Response, DEE Response, Referral to DEQ, Cleanup by Contractor
02/23/2016	16121 Tipton Ct	Vehicle fire	Fire & EMS Response, DEQ Response, Cleanup by Responsible Party
04/29/2016	3341 Newby's Bridge Rd	Equipment malfunction, motor oil	Fire & EMS Response, DEE Response, Cleanup by Contractor, Referral to VDOT, Referral to DEQ
05/30/2016	Turner Rd & Satinwood Dr	Vehicle Accident, vehicle fluids	Fire & EMS Response, DEE Response, Cleanup by Contractor
06/02/2016	7660 Lady Blair Dr	Hydraulic equipment failure	DEE Response, NOV Issued, Cleanup by Contractor



Table 6. Spill Responses in PY2 (Cont.)

<u>Date</u>	<u>Site Address</u>	<u>Source of Spill</u>	<u>Follow-Up Activities</u>
06/16/2016	9125 Jefferson Davis Hwy	Damaged equipment at gas station, fuel spill	Fire & EMS Response, Cleanup by Contractor, Referral to VDOT, Referral to DEQ
06/24/2016	10603 Waterfowl Ct	Hydraulic equipment failure	DEE Response, Cleanup by Contractor
07/05/2016	Bradley Bridge Rd and Molena Dr	Vehicle Accident, vehicle fluids	Fire & EMS Response, Referral to DEQ
07/08/2016	13125 Harrowgate Rd	Vehicle Accident, hydraulic fluid	Fire & EMS Response, DEE Response, Referral to VDOT, Referral to DEQ
07/12/2016	3201 Tanners Way	Vandalism, punctured fuel tank	Fire & EMS Response, DEE Response, Cleanup by Contractor, Referral to DEQ
07/28/2016	15401 Ruffin Mill Rd	Vehicle Accident, transmission fluid	Fire & EMS Response, DEE Response, Referral to VDOT, Referral to DEQ
08/12/2016	13101 Lowery Bluff Way	Hydraulic equipment failure	DEE Response, Cleanup by Contractor, Referral to DEQ
08/22/2016	6201 Belmont Rd	Vehicle Accident, punctured fuel tank	Fire & EMS Response, DEE Response, Cleanup by Contractor, Referral to DEQ, Referral to VDOT
09/22/2016	14300 Woods Walk Ln	Vehicle fire	Fire & EMS Response, DEE Response, NOV Issued, Cleanup by Contractor
10/04/2016	13618 Buck Rub Dr	Hydraulic equipment failure	Fire & EMS Response, DEE Response, NOV Issued, Cleanup by Contractor
10/06/2016	5401 Jefferson Davis Hwy	Unknown source, sheen on creek	Fire & EMS Response, Referral to DEQ
11/26/2016	15521 Midlothian Tpk	Vehicle fire	Fire & EMS Response, DEE Response, Cleanup by Contractor
12/1/2016	12001 South Shore Point Dr	Damaged equipment at gas station, fuel spill	DEE Response, Referral to DEQ, Cleanup by Contractor

PROGRAM EVALUATION

The Spill Prevention and Response component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include identifying QA/QC modification needs and evaluating potential opportunities for increased coordination efforts.



Part I.B.2.g) Industrial and High Risk Runoff

SUMMARY OF IMPLEMENTATION

The purpose of the IHRR component is to identify and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities and industrial or commercial discharges determined to be contributing a significant pollutant loading to the MS4. In PY2, DEE continued to implement the IHRR program, ensuring that existing program objectives aligned with the state permit requirements. A list of all known industrial and high risk dischargers was updated twice in the reporting year, utilizing the completed MS4 service area delineation. This updated list included 20 Priority 1 facilities, one (1) Priority 2 facility, and seven (7) Priority 3 facilities. Ten (10) inspections were performed at nine (9) industrial facilities and one (1) commercial facility in the reporting year. One (1) facility during PY2 was referred to DEQ to obtain stormwater permit coverage. In PY2, fourteen (14) DMRs were submitted and reviewed by DEE to determine if those facilities needed additional monitoring or stormwater controls. As a result of review of the submitted DMRs, DEE did not require any additional actions.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall report on implementation of the inspection schedule and include a list of the facilities and/or facility outfalls inspected during the reporting period.**

In PY2, DEE staff continued to implement the prioritized inspection procedures, which resulted in nine (9) Priority 1 facility inspections and one (1) Priority 2 facility inspection. DEE staff will continue its inspection of Priority 1 and Priority 2 facilities in PY3.

Table 7. IHRR Program Inspections Performed in PY2

<u>Date Inspected</u>	<u>Facility Name</u>	<u>Address</u>
3/22/2016	Carl Zeiss Optical, Inc.	13017 N. Kingston Ave
3/22/2016	Essentra Porous Technologies Corp.	1625 Ashton Park Dr
3/24/2016	Inland Paperboard & Packaging	7510 Whitepine Rd
3/24/2016	QSI, LLC.	7820 Whitepine Rd
6/10/2016	Lee Huguenot Trade Center	1811 Huguenot Rd
7/7/2016	Daniel Park Rinse Station	6600 Whitepine Rd
7/7/2016	Parks & Recreation Central Rinse Station	9201 Public Works Rd



Table 7. IHRR Program Inspections Performed in PY2 (Cont.)

<u>Date Inspected</u>	<u>Facility Name</u>	<u>Address</u>
7/13/2016	Rockwood Park Rinse Station	3401 Courthouse Rd
7/20/2016	Point of Rocks Park Rinse Station	201 Enon Church Rd
7/20/2016	Huguenot Park Rinse Station	10901 Robious Rd

- **Each annual report shall include a list of referrals to the Department.**

Table 8. Industrial and High Risk Dischargers Referred to DEQ in PY2

<u>Facility Name</u>	<u>Address</u>	<u>Reason for Referral</u>
County Waste Depot	12230 Deergrove Rd	Possible General Permit SIC Code Match

PROGRAM EVALUATION

The IHRR Program was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include examining documentation standardization needs, identifying QA/QC modifications needs, and evaluating potential opportunities for increased coordination efforts.



Part I.B.2.h) Storm Sewer Infrastructure Management

SUMMARY OF IMPLEMENTATION

The purpose of this component is to implement an MS4 maintenance program designed to provide a certain level of service to maintain the aesthetics of public areas, provide public safety, maintain public infrastructure, provide flood management, and protect stormwater quality. In PY2, DEE increased the number of teams dedicated to infrastructure inspections and employed a consultant to assist in updates to the stormwater and planimetric layers. The MS4 service area delineation was developed and submitted to DEQ. DEE continued to have staff members within its Drainage section dedicated to the inspection and maintenance of SWM/BMP facilities in the county. Additionally, DEE continued to use an automated database that tracks notifications, inspections and maintenance activities performed for SWM/BMP facilities within the county. DEE staff, in conjunction with a consultant, inspected 648,562 linear feet of storm sewer infrastructure, for a total of 7,023 assets inspected in the reporting year. In PY2, 330 county-maintained SWM/BMP facilities were inspected, resulting in 214 maintenance activities and 16 repairs. DEE staff verified 85 inspections of privately-maintained facilities. From these inspections, additional maintenance and/or repairs were required and performed for two (2) facilities. No maintenance and/or repair extensions were granted. In PY3, the stormwater asset inventory and MS4 service area will continue to be refined and improved for accuracy.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall include a progress report on efforts to repair failed storm sewer outfalls.**

In PY2, while performing an outfall screening as part of the IHRR program, a failing storm sewer outfall was identified (OTLT-011247) and referred for maintenance (Request 2016-838). DEE coordinated with a neighboring development to stabilize the eroded channel and will complete repairs to the infrastructure above the outfall in PY3.

- **Each annual report shall include a list of activities including inspections, maintenance, and repair of stormwater infrastructure operated by the permittee as required in Part I.B.2.h)1, including the total number of stormwater structures operated by the permittee, the type and number of stormwater structures, inspected and maintained; the linear feet of storm sewer system owned and/or operated by the permittee, and the linear feet of storm sewer system inspected.**



Table 9. Stormwater Inspections, Maintenance and Repairs in PY2

<u>Asset Type</u>	<u>Assets Owned and/or Operated</u>	<u>Inspections</u>	<u>Linear Feet Owned and/or Operated</u>	<u>Linear Feet Inspected</u>	<u>Maintenance</u>	<u>Repair</u>
Ditch	6,041	1,915	818,494	311,378	396	58
Pipe	8,795	2,454	1,031,075	307,134	12	68
Structure*	6,876	1,529	-	30,050	24	35
Inlet	5,596	1,125	-	-	1	0
Total	27,308	7,023	1,949,569	648,562	433	161

*Includes manholes, junction boxes and other asset types not defined as ditches, pipes or inlets during inspection

The state permit requires inspection of no less than 20% of the MS4 annually. In PY2, 25.7% of the assets within the currently identified MS4 service area were inspected.

- **Each annual report shall provide a summary of actions taken by the permittee to address failure of privately maintained SWM facilities owners to abide by maintenance agreements.**

For a summary of privately-maintained facility inspections verified and maintenance or repairs required, please refer to the summary of implementation for Part I.B.2.h). During PY2, there were no failures of facility owners identified through inspections of privately-maintained SWM/BMPs.

- **Each annual report shall include a list of activities including inspections performed and notifications of needed maintenance and repair of stormwater facilities not operated by the permittee as required by Part I.B.2.h)2).**

Table 10. Activities Performed for Privately-Maintained Facilities in PY2

<u>Privately Maintained Facility Activities</u>	
Private Inspections Verified	85
Additional Maintenance/Repairs Required	2
Additional Maintenance/Repairs Performed	2

- **The second annual report submitted under this state permit shall include the information included in Part I.B.2.h)4). The information shall be submitted as an electronic file in one of the following formats: shapefile, geodatabase, .xls, .xlsx, .csv, .mdx, .dbf, delimited text, XML, or other approved file approved by the Department.**

Please refer to Appendix B.2 “Impervious, Pervious and Total Acres Served by the MS4 and Treated by Stormwater Controls as of June 30, 2009”.



PROGRAM EVALUATION

The Storm Sewer Infrastructure Management component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include evaluating documentation standardization needs, identifying QA/QC modification needs, and evaluating methods for tracking information. Additional recommendations include ensuring the procedures are modified as necessary and properly implemented, and identifying potential modifications to improve alignment with the requirements of Part I.B.2.h) of the permit.



Part I.B.2.i) County Facilities

SUMMARY OF IMPLEMENTATION

The purpose of this component is to ensure proper operational and maintenance practices are used at county facilities in order to reduce the potential for pollutants to enter the MS4. In PY2, staff performed site visits of potential HPMFs identified in PY1 to confirm if the municipal facilities met HPMF definition criteria established in PY1. Late in the reporting year, DEE began drafting SWPPPs for the confirmed HPMFs. Beginning in PY2, Schools staff coordinated with DEE to begin the installation of placards on storm drains at Schools facilities. Good housekeeping practices at county facilities continue to be implemented through enforcement of the county's ordinance prohibiting illicit discharges, countywide and departmental SOPs, and proper municipal vehicle inspections and maintenance.

PROGRAM EVALUATION

The County Facilities component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include evaluating documentation standardization needs, evaluating potential opportunities for increased coordination efforts, and evaluating program resource needs.



Part I.B.2.j) Public Education/Participation

SUMMARY OF IMPLEMENTATION

The purpose of this component is to provide information to the public to educate residents on stormwater runoff and how they can help improve the water quality of waterways and other natural resources. DEE continued to promote educational outreach and participation outlined in the state permit on the county website, through flyer distribution, educational videos on social media, and presentations by county staff. In PY2, DEE continued efforts to promote the reporting of IDIDs by distributing approximately 200 illicit discharge fact sheets at county offices, libraries and public events. Storm drain markers promoting the reporting of illicit discharges were installed by county staff and volunteers at various storm drains throughout the county. In PY2, DEE facilitated volunteer stream and river cleanups and continued the volunteer water quality monitoring program. DEE also provided voluntary retrofit rain barrel workshops and demonstrations. DEE continued outreach to encourage the implementation of integrated management practice plans and techniques at private and public golf courses draining to the MS4. DEE also participated in the James River Pet Waste Coalition with Parks & Recreation to continue to provide 18 pet waste stations at county parks. GSEN continued its partnership with the Central Virginia Waste Management Authority's curbside recycling pickup program. Car wash containment kits were also loaned to community groups conducting charity car wash events. Staff from DEE and Extension conducted training classes for Virginia Master Gardener volunteers. The Extension continued its Grass Roots and Landscape for Life programs and performed regional certification and recertification classes for professional applicators of pesticides. DEE distributed informative postcards directing businesses within priority watersheds to pollution prevention resources on the county website.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall include a list of permittee public outreach and education activities and the estimated number of individuals reached through the activities. An evaluation of program effectiveness, as outlined in the MS4 Program Plan with recommendations for future changes shall also be included.**



Table 11. Public Education/Participation Outreach in PY2

<u>Activity</u>	<u>Attendance / Approximate Reach</u>
<u>Part I.B.2.i)1)(a)</u>	
Storm Drain Marking	13
Newspaper Advertisements	209,681
Fact Sheet Distribution	200
Storm Drain Poster	50
<u>Part I.B.2.i)1)(b)</u>	
Stream and River Cleanups	749
Education Programs for Schools/Students	739
Public Events/Fairs	3,850
Citizen Water Quality Monitoring	40
<u>Part I.B.2.i)1)(c)</u>	
Targeted Mailings to Golf Courses	14
<u>Part I.B.2.i)1)(d)</u>	
GSEN Staff Presentations/Events	21,018
<u>Part I.B.2.i)1)(e)</u>	
James River Pet Waste Coalition Social Media	6,632
Pet Waste Station Usage at County Parks	27,193
GSEN Staff Presentations/Events	21,018
<u>Part I.B.2.i)1)(f)</u>	
GSEN Staff Presentations/Events	21,018
Educational Video on Social Media	92
Anti-Litter Program Cleanup Volunteers	528
<u>Part I.B.2.i)1)(g)</u>	
DEE Staff Presentations/Public Events	32
Car Wash Kit Demonstration/Charity Car Washes	446
Newspaper Article and Advertisements	209,681
Educational Flyer Distribution	275
Educational Video on Social Media	584
<u>Part I.B.2.i)1)(h)</u>	
Extension Grass Roots Program	133
Extension Landscape for Life Program	58
Master Gardener Training	18
Extension Petersburg Pesticide Applicator Recertification Training	120



Table 11. Public Education/Participation Outreach in PY2 (Cont.)

<u>Activity</u>	<u>Attendance / Approximate Reach</u>
<u>Part I.B.2.i)1)(i)</u>	
Rain Barrel Workshops	88
Rain Barrel Demonstration	108
Rain Barrel Video on Social Media	186
Completed VCAP Projects	3
<u>Part I.B.2.i)1)(i)</u>	
Distribution of Educational Materials	130

- **Each annual report shall provide a summary of voluntary retrofits completed on private property used to demonstrate pollutant reduction requirements. Note that any voluntary project for which the permittee seeks to use for pollutant reduction requirements must be tracked and reported.**

There were no known voluntary retrofits completed on private property used to demonstrate pollution reduction requirements in PY2.

- **Each annual report shall provide a summary of voluntary stormwater management techniques encouraged on private property.**

Please refer to the summary of implementation for Part I.B.2.i).

PROGRAM EVALUATION

The Public Education/Participation Program was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include evaluating documentation standardization needs, identifying QA/QC modification needs and evaluating methods for tracking information. Additional recommendations include evaluating opportunities for increased coordination efforts.



Part I.B.2.k) Training

SUMMARY OF IMPLEMENTATION

The purpose of this component is to provide pollution prevention training to county employees to inform them of proper practices to reduce the potential of pollutants entering the MS4 and ensure proper certifications are obtained as necessary. In PY2, DEE collaborated with LPC to develop and implement biennial stormwater training modules and provided training to 555 appropriate county personnel on recognizing and reporting illicit discharges and good housekeeping and pollution prevention practices for activities at various county facilities. In PY2, multiple departments ensured employees and contractors applying pesticides and herbicides were properly trained and/or certified. Two (2) employees from GSEN attended a class for pesticide and herbicide recertification. In PY2, 21 Parks & Recreation employees attended a pesticide application license renewal course. Thirty-two (32) BI employees maintained their ESC certifications in the reporting year. Additionally, all DEE staff members including program administrators, plan reviewers and inspectors maintained the appropriate ESC and VSMP certifications in PY2. Twenty-four (24) Fire & EMS recruits, 476 Fire & EMS active personnel, and 42 Police recruits received hazardous materials courses as described in the second Specific Reporting Requirements for Part I.B.2.k).

SPECIFIC REPORTING REQUIREMENTS

- Each annual report shall include a list of training events, the date, and the estimated number of individuals attending each event.

Table 12. Training Events in PY2

<u>Training Class</u>	<u>Date</u>	<u>Attendance</u>
<u>Part I.B.2.k)1), 2), 3) & 7)</u>		
Stormwater Training Module - Schools	6/7/2016	21
Stormwater Training Module - DEE	9/9/2016	50
Stormwater Training Module - Utilities	10/18/2016	46
Stormwater Training Module - Utilities	10/18/2016	26
Stormwater Training Module - Utilities	10/19/2016	26
Stormwater Training Module - Utilities	10/19/2016	8
Stormwater Training Module - DEE	10/20/2016	9
Stormwater Training Module - Utilities	10/20/2016	20
Stormwater Training Module - Parks & Recreation	10/21/2016	10



Table 12. Training Events in PY2 (Cont.)

Training Class	Date	Attendance
Stormwater Training Module - Utilities	10/26/2016	8
Stormwater Training Module - Planning	11/4/2016	9
Stormwater Training Module - Health	11/8/2016	13
Stormwater Training Module - Parks & Recreation	11/9/2016	10
Stormwater Training Module - GSEN	11/14/2016	9
Stormwater Training Module - Parks & Recreation	11/15/2016	9
Stormwater Training Module - Utilities	11/15/2016	26
Stormwater Training Module - Parks & Recreation	11/16/2016	9
Stormwater Training Module - Utilities	11/17/2016	5
Stormwater Training Module - Utilities	11/21/2016	10
Stormwater Training Module - Parks & Recreation	11/23/2016	7
Stormwater Training Module - Parks & Recreation	11/29/2016	9
Stormwater Training Module - Parks & Recreation	11/30/2016	9
Stormwater Training Module - BI	12/1/2016	34
Stormwater Training Module - Utilities	12/1/2016	17
Stormwater Training Module - B&G	12/6/2016	52
Stormwater Training Module - Utilities	12/12/2016	6
Stormwater Training Module - Utilities	12/26/2016	2
Stormwater Training Module - Various Online	10/24- 12/29/2016	95
Part I.B.2.k)4)		
Landscape Supply Recertification Training	3/4/2016	21
Horticultural Harmony: Toward Beautiful and Resilient Compositions	2/12/2016	2



Table 12. Training Events in PY2 (Cont.)

Training Class	Date	Attendance
<u>Part I.B.2.k)5) & 6)</u>		
Applied Soil Concepts for ESC and SWM Professionals	2/4/2016	2
VA Lakes and Watersheds Association Annual Conference	3/13/16	2
SWM/ESC Utilizing New Methods and Technologies	3/22/2016	2
Wetlands for ESC and SWM Professionals	6/13/2016	21
ACF Corporation ESC Seminar	6/16/2016	7
Wetlands for ESC and SWM Professionals	6/21/2016	21
<u>Part I.B.2.k)5) & 6)</u>		
Photography for ESC Inspectors	8/23/16	1
Soil Amendments for Inspectors	8/23/16	1
Applied Soil Concepts for ESC and SWM Professionals	8/24/16	2
Floodplain Management Seminar	10/25/2016	3
Erosion and Sediment Plan Review	12/1/2016	2
Stormwater Management Plan Review	12/8/2016	1
Flexamat: Permanent Soil Stabilization	12/14/16	8
<u>Part I.B.2.k)8)</u>		
Hazardous Materials Awareness	3/24/2016	28
Hazardous Materials Awareness	8/11/2016	14
Hazardous Materials Awareness	5/25/2016	11
Hazardous Materials Operations	5/25/2016	11
Hazardous Materials Awareness	11/16/2016	13
Hazardous Materials Operations	11/16/2016	13
Hazardous Materials Operations Refresher Training	July-November 2016	476

PROGRAM EVALUATION

The Training component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvement in PY3 include evaluating methods for tracking information and opportunities for increased coordination efforts.



Part I.B.2.I) Water Quality Screening Programs

SUMMARY OF IMPLEMENTATION

The purpose of this component is to implement programs to help identify and investigate potential unauthorized discharges to the MS4. In PY2, DEE continued implementation of the dry weather screening program resulting in the screening of 100 outfalls. The outfalls screened in PY2 included three (3) commercial outfalls, one (1) municipal outfall and 96 residential outfalls. Outfalls were screened for physical indicators and, when applicable, in situ and laboratory chemical testing and analysis of dry weather flows were performed. In PY2, six (6) outfalls were referred for maintenance issues. None of the outfalls inspected as part of the dry weather screening program were found to have unauthorized discharges in PY2. Results of dry weather screenings performed in PY2 continue to be maintained on file. In PY2, DEE implemented the wet weather screening program resulting in eight (8) outfalls screened, which included outfalls with large drainage areas consisting of mixed commercial, residential and industrial development. Outfalls were screened utilizing physical indicators and *in situ* analysis, and when applicable, laboratory chemical testing and analysis of wet weather flows were performed. None of the outfalls inspected as part of the wet weather screening program were found to have unauthorized discharges in PY2. Wet weather screenings results are maintained on file. Because PY2 was the initial year of the wet weather screening, long-term trends analysis was unable to be evaluated due to the amount and length of time of data collected. Analysis of collected data will improve through the remaining permit years as additional data is collected.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall include a list of locations upon which dry weather screening was conducted, the results, and any follow-up actions including maintenance and/or repair of infrastructure or outfalls performed as a result of the dry weather screening.**

Please refer to Appendix B.3 “*Dry Weather Screening Inspections, Results and Follow-up Activities in PY2*”.

- **Each annual report following the initial annual report shall include a list of locations upon which wet weather screening was conducted, the results, weather conditions at the time sample was collected to include date and approximate time of most recent storm event preceding sample collection, long term trends analyses, and any follow-up actions including maintenance and/or repair of infrastructure or outfalls performed as a result of the wet weather screening.**



Please refer to Appendix B.4 *“Wet Weather Screening Inspections, Results and Follow-up Activities in PY2”*.

PROGRAM EVALUATION

The Water Quality Screening Programs component was evaluated for effectiveness through DEE's pilot internal review process. Recommendations for improvement in PY3 include evaluating documentation standardization needs, identifying QA/QC modifications needs, and evaluating potential opportunities for increased coordination efforts. Other recommendations include identifying potential modifications to improve the results of implementation and evaluating methods for tracking information.



Part I.B.2.m) Infrastructure Coordination

SUMMARY OF IMPLEMENTATION

The purpose of this program is to coordinate with VDOT regarding issues of MS4 physical-interconnectivity. In PY2, DEE continued coordination efforts, ensuring the existing program objectives aligned with the state permit requirements. DEE staff hosted an infrastructure coordination meeting on October 17th, 2016 in which three (3) representatives from DEE and four (4) representatives from VDOT were in attendance. For documentation of the annual meeting, please refer to Appendix B.5 “*Infrastructure Coordination Meeting*”. At this meeting, each of the items outlined in Part I.B.2.m) of the permit were discussed with significant discussions surrounding the status of both county and VDOT Chesapeake Bay TMDL Action Plans and coordination of reporting illicit discharges when both MS4s are impacted. Additional coordination occurred between the county and VDOT when drainage issues, illicit discharges and/or improper disposal, and spills occurred either in VDOT's ROW or physically-interconnected MS4. There were 74 drainage issues resulting in 68 referrals to VDOT and six (6) instances in which the county performed the work. The IDID program had 19 issues resulting in 4 referrals to VDOT and 15 instances of referral and enforcement coordination. Lastly, through the Spill Prevention and Response program, there were five (5) spills in which both agencies participated in a coordinated response.

PROGRAM EVALUATION

The Infrastructure Coordination component was evaluated for effectiveness through DEE's internal review process. Recommendations for improvements in PY2 include evaluating documentation standardization needs, identifying QA/QC modification needs, and evaluating opportunities for increased coordination efforts.



Section 3. Monitoring Program Reports

Part I.C.1. Biological Stream Monitoring

SUMMARY OF IMPLEMENTATION

The purpose of the Biological Stream Monitoring is to evaluate benthic macroinvertebrate community and habitat conditions of select streams within Chesterfield County. In PY2, the county continued to monitor five stream sites within the James River watershed for bioassessment and habitat monitoring during spring (March) and autumn (October).

SPECIFIC REPORTING REQUIREMENTS

- Each annual report shall include a summary of the monitoring results and analyses and an interpretation of the data with respect to long-term patterns/trends.

Please refer to Appendix C.1 “2016 Assessment of the Biology, Habitat and In-Stream Chemistry of Select Streams in Chesterfield County, Virginia”.

Part I.C.2. In-Stream Monitoring

SUMMARY OF IMPLEMENTATION

The purpose of the In-Stream Monitoring is to evaluate the chemical condition of select streams within Chesterfield County. In PY2, the county continued to monitor five stream sites within the James River watershed for in-stream monitoring every other month starting in January of 2016.

SPECIFIC REPORTING REQUIREMENTS

- Each annual report shall include a summary of the monitoring results and analyses and an interpretation of the data with respect to long-term patterns/trends.

Please refer to Appendix C.1 “2016 Assessment of the Biology, Habitat and In-Stream Chemistry of Select Streams in Chesterfield County, Virginia”.



Part I.C.3. Floatables Monitoring

SUMMARY OF IMPLEMENTATION

The purpose of the Floatables Monitoring is to document the effectiveness of litter control programs. In PY2, DEE collaborated with staff from GSEN's anti-litter program. Monitoring protocols were developed and implemented and five (5) sites were selected to determine the loading of floatables from the MS4 service area. In PY3, quarterly monitoring events will begin and methods for analyses will be evaluated.

SPECIFIC REPORTING REQUIREMENTS

- **The second annual report shall include the monitoring protocols for the floatables monitoring program.**

Please refer to Appendix C.2 "*Floatables Monitoring Program SOP*".



Part I.C.4. Structural and Source Controls Compliance Monitoring and Tracking

SUMMARY OF IMPLEMENTATION

The purpose of the Structural and Source Controls Monitoring and Tracking is to maintain an updated electronic database of all known permittee and privately maintained SWM/BMP. In PY2, DEE continued to use SWIFT, a database designed to facilitate drainage and SWM/BMP maintenance processes. SWIFT allows for a multitude of activities related to SWM/BMP maintenance including tracking upcoming SWM/BMP maintenance needs (both county and privately-maintained) and issuing inspection notification letters to owners of privately-maintained facilities. In PY2, DEE certified a total of 38 SWM/BMP structures. DEE also identified areas of opportunity for improvement of current processes and information tracking that will continue to be addressed in PY3.

SPECIFIC REPORTING REQUIREMENTS

- **Each annual report shall include a copy of the updated database in electronic format.**

Please refer to Appendix C.3 “*Structural and Source Controls Compliance Monitoring and Tracking for PY2*”.

- **Each annual report shall include a summary of the program to ensure maintenance of private stormwater management facilities.**

Please refer to the summary of implementation for Part I.B.2.h) located in Section 2 of this report.

- **Each annual report shall include a summary of the program to ensure maintenance of stormwater management facilities maintained by the permittee.**

Please refer to the summary of implementation for Part I.B.2.h) located in Section 2 of this report.



Section 4. TMDL Implementation

Part I.D.1. Chesapeake Bay Special Condition

SUMMARY OF IMPLEMENTATION

The purpose of this component is to develop a document, the Chesapeake Bay Total Maximum Daily Load Action Plan, which is in compliance with the requirements of Chesapeake Bay Special Condition (Part I.D.1.) of the state permit. The section provides the framework for the development of a plan that details the county's program(s), means & methods and projects to be implemented to reduce the loadings of nutrients and sediment from existing MS4 sources. In PY2, DEE collaborated with a consultant and planned and developed the county's Chesapeake Bay TMDL Action Plan. The Plan was submitted to DEQ on December 16, 2016 per the requirements of Part I.D.1. The document covers implementation for the first permit cycle and follows the structure of the permit addressing the components listed under Part I.D. The components of the Plan will be updated annually and can be found on the county's website at <http://www.chesterfield.gov/content2.aspx?id=8590137033>.

ANNUAL REPORTING REQUIREMENTS

- In accordance with Part I.D.1.b)1), the permittee shall submit the Chesapeake Bay TMDL Action Plan.

Please refer to the summary of implementation for Part I.D.1..

- Each subsequent annual report shall include a list of control measures implemented during the reporting period and the cumulative progress toward meeting the compliance targets for total nitrogen, phosphorus, and total suspended soils.



Table 13. Control Measures Implemented During the Reporting Period for the Chesapeake Bay TMDL

<u>Control Measure</u>	<u>TN Reductions (lbs/yr)</u>	<u>TP Reductions (lbs/yr)</u>	<u>TSS Reductions (lbs/yr)</u>
Structural BMPs	0.0	0.0	0.0
Land Use Change	0.0	0.0	0.0
Urban Stream Restoration	195.50	187.18	125,126.19
Urban Nutrient Management	0.0	0.0	0.0
Nutrient Trading	0.0	0.0	0.0
Redevelopment	0.0	0.0	0.0
Total Reductions Achieved	195.50	187.18	125,126.19
Compliance Target Frist Permit Cycle	981.57	154.28	59,843.38
Percent Compliance	19.92%	121.32%	209.09%

- Each subsequent annual report shall include a list of control measures that were implemented during the reporting cycle and the estimated reduction achieved by the control. For stormwater management controls, the report shall include the information required in Part I.C.4.a) and shall include whether an existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used.

Table 14. Control Measures Implemented During the Reporting Cycle and Estimated Reduction Achieved for the Chesapeake Bay TMDL

<u>Urban Stream Restoration</u>	<u>TN Reductions (lbs/yr)</u>	<u>TP Reductions (lbs/yr)</u>	<u>TSS Reductions (lbs/yr)</u>
Mid-Lothian Mines Stream Restoration	112.09	109.47	73,711.83
Wrens Nest Stream Restoration	83.41	77.71	51,414.36
Total Reductions	195.50	187.18	125,126.19



- Each annual report shall include a list of control measures that are expected to be implemented during the next reporting period and the expected progress toward meeting the compliance targets for total nitrogen, total phosphorus, and total suspended solids.

Table 15. Control Measures Expected to be Implemented During the Reporting Period for the Chesapeake Bay TMDL

<u>Control Measure</u>	<u>TN Reductions (lbs/yr)</u>	<u>TP Reductions (lbs/yr)</u>	<u>TSS Reductions (lbs/yr)</u>
Structural BMPs	972.67	170.26	62364.39
Land Use Change	0.00	0.00	0.00
Urban Stream Restoration	195.50	187.18	125126.19
Urban Nutrient Management	0.00	0.00	0.00
Nutrient Trading	0.00	0.00	0.00
Redevelopment	0.00	0.00	0.00
Total Reductions to be Achieved	1,168.17	357.44	187,490.58
Compliance Target Frist Permit Cycle	981.57	154.28	59,843.38
Percent Compliance	119.01%	231.68%	313.30%



Part I.D.2. TMDL Action Plans other than the Chesapeake Bay TMDL

SUMMARY OF IMPLEMENTATION

The purpose of this component is to develop local TMDL Action Plans for implementation to reduce pollutants of concern loadings from controllable, anthropogenic sources to the maximum extent practicable as part of a long-term and comprehensive, multi-pollutant watershed management program. The section provides the framework for the development of a plan that details the county's program(s) and identifies best management practices and other activities to be implemented to address wastes load allocations. In PY2, DEE, in conjunction with a consultant, planned and developed the county's Bacteria Total Maximum Daily Load Action Plan for *Escherichia coli* bacteria from the regulated MS4 areas draining to the Appomattox River and James River watersheds. The Bacteria TMDL Action Plan was submitted to DEQ on December 16, 2016 per the requirements of Part I.D.2.. The document covers implementation for the first permit cycle and follows the structure of the permit addressing the components listed under Part I.D.2.. The Bacteria TMDL Action Plan will be updated annually and is found on DEE's website at <http://www.chesterfield.gov/content2.aspx?id=8590137467>.

ANNUAL REPORTING REQUIREMENTS

- **The permittee shall submit the required TMDL Action Plans to the Department for review and acceptance with the appropriate annual report associated schedule identified in this permit.**

Please refer to the summary of implementation for Part I.D.2..

- **The permittee shall report on the implementation of the TMDL Action Plans and associated evaluation including the results of any monitoring conducted as part of the evaluation.**

The Bacteria TMDL Action Plan is in draft form and under DEQ review. Information on plan implementation and any evaluation will be included in the next annual report for PY3.



Section 5. Specific Reporting Requirements

Table 16. Location of Specific Reporting Requirements within the 2016 Annual Report

<u>Program Reference</u>		<u>Reporting Requirements</u>	<u>Location</u>
<i>Discharges Authorized Under This State Permit</i>			
Permit Responsibility	<u>Part I.A.2.</u>	List of Roles and Responsibilities	Appendix A.1
		Circumstance of non-compliance outside of permittee control	Section 5
MS4 Program Resources	<u>Part I.A.4.</u>	Copy of fiscal year budget	Appendix A.2
Permit Maintenance Fee	<u>Part I.A.5.</u>	Statement regarding payment of the MS4 permit maintenance fee	Section 5
MS4 Program Plan Review and Updates	<u>Part I.A.7.</u>	Modifications to the MS4PP	Section 5
<i>Stormwater Management</i>			
Construction/ Post-Construction Runoff	<u>Part I.B.2.a)</u>	Land disturbing activities approved and total acres disturbed	Section 2
		Land disturbing activity inspections performed and enforcement actions taken	Section 2
		Summary of actions taken for <u>Part I.B.2.a)1) and 2)</u>	Section 2
Retrofitting on Prior Developed Land	<u>Part I.B.2.b)</u>	Update for projects implemented in PY2	Section 2
Pesticides, Herbicides & Fertilizer Application	<u>Part I.B.2.d)</u>	Report of nutrient management plan implementation schedule compliance	Section 2
		Lands with NMPs implemented in PY2 and cumulative total acreage under NMPs	Section 2
		Lands with Integrated Pest Management Plans	Section 2



Table 16. Location of Specific Reporting Requirements within the 2016 Annual Report (Cont.)

<u>Program Reference</u>		<u>Reporting Requirements</u>	<u>Location</u>
<i>Stormwater Management (Cont.)</i>			
Illicit Discharge & Improper Disposal	<u>Part I.B.2.e)</u>	Illicit discharges, source, follow-up activities and status of elimination during the reporting year	Appendix B.1
		Linear feet of sanitary sewer inspected	Section 2
Spill Response	<u>Part I.B.2.f)</u>	Spills, source and follow-up activities during the reporting year	Section 2
Industrial & High Risk Runoff	<u>Part I.B.2.g)</u>	Implementation of inspection schedule	Section 2
		List of the facilities and/or facility outfalls inspected during the reporting period	Section 2
		List of referrals to the Department	Section 2
Infrastructure Management	<u>Part I.B.2.h)1)</u>	Report on efforts to repair failed storm sewer outfalls	Section 2
		List of inspections, maintenance, and repair of stormwater infrastructure operated by the permittee	Section 2
		Actions taken to address failure of maintenance and repair of privately-maintained stormwater facilities	Section 2
	<u>Part I.B.2.h)1)</u>	List of inspections and notifications to privately-maintained stormwater facilities	Section 2
		Impervious, pervious and total acres served by the MS4 and stormwater controls as of June 30, 2009	Appendix B.2
Public Education and Participation	<u>Part I.B.2.j)</u>	Outreach activities and number of people reached	Section 2
		Evaluation of program effectiveness	Section 2
		Summary of voluntary retrofits completed on private property	Section 2
		Summary of voluntary stormwater management techniques encouraged	Section 2
Training	<u>Part I.B.2.k)</u>	Training event, date and number attending	Section 2



Table 16. Location of Specific Reporting Requirements within the 2016 Annual Report (Cont.)

<u>Program Reference</u>		<u>Reporting Requirements</u>	<u>Location</u>
<i>Stormwater Management (Cont.)</i>			
Water Quality Screening Programs	Part <u>I.B.2.l)</u>	Dry weather screening, results and follow-up actions	Appendix B.3
		List of locations of wet weather screening, results, weather conditions, long term trends analyses, and any follow-up actions	Appendix B.4
Infrastructure Coordination	Part <u>I.B.2.m)</u>	Documentation of coordination efforts (requirement within permit language)	Appendix B.5
<i>Monitoring Requirements</i>			
Biological Stream Monitoring	<u>Part I.C.1.</u>	Summary of monitoring results and analyses	Appendix C.1
In-Stream Monitoring	<u>Part I.C.2.</u>	Summary of monitoring results and analyses	Appendix C.1
Floatables Monitoring	<u>Part I.C.3.</u>	Monitoring protocols	Appendix C.2
Structural & Source Controls Compliance	<u>Part I.C.4.</u>	Updated database in electronic format	Appendix C.3
		Summary of program to ensure maintenance of private stormwater management facilities	Section 2
		Summary of program to ensure maintenance of permittee maintained stormwater management facilities	Section 2
<i>TMDL Action Plan & Implementation</i>			
Ches Bay TMDL Action Plan Updates	Part <u>I.D.1.d.</u>	Summary of implementation (requirement within permit language)	Section 4
TMDL Action Plans (Other than Ches Bay)	Part <u>I.D.2.f)</u>	Summary of implementation (requirement within permit language)	Section 4



Part I.A.2. Permittee Responsibilities

SPECIFIC REPORTING REQUIREMENTS

- Each annual report shall include a list of current roles and responsibilities.

Please refer to Appendix A.1 *"Roles and Responsibilities"*.

- Each annual report shall include a list of those circumstances of non-compliance outside of the permittee's control.

There were no circumstances of non-compliance outside of the permittee's control to report for PY2.

Part I.A.4. MS4 Program Resources

SPECIFIC REPORTING REQUIREMENTS

- A copy of the fiscal year's budget including its proposed capital and operation and maintenance expenditures necessary to accomplish the activities required by this state permit shall be submitted with each annual report.

Please refer to Appendix A.2 *"2017 Fiscal Year Budget - Abridged"*.

Part I.A.5. Permit Maintenance Fees

SPECIFIC REPORTING REQUIREMENTS

- A statement regarding payment of the applicable MS4 permit maintenance fee, including check date and check number shall be included with each annual report. Note: Please do not include copies of checks or other bank records.

Chesterfield County paid the MS4 permit maintenance fee with check number 20038364 on September 28, 2016.

Part I.A.7. MS4 Program Review and Updates

SPECIFIC REPORTING REQUIREMENTS

- All modifications and proposed modifications shall be reported in accordance with this section of the permit.

MS4 Program Plan modifications and updates have been documented in the MS4 Program Plan. The most recent version of the MS4 Program Plan can be found on the county website at <http://www.chesterfield.gov/content2.aspx?id=2849>.



Appendix A



A.1 Roles & Responsibilities

Electronic Submission



A.2 2017 Fiscal Year Budget - Abridged

Electronic Submission



Appendix B



B.1 List of Illicit Discharges and Improper Disposal Reports Responded to in PY2

Electronic Submission



B.2 Impervious, Pervious and Total Acres Served by the MS4 and Treated by Stormwater Controls as of June 30, 2009

Electronic Submission



B.3 Dry Weather Screening Inspections, Results and Follow-up Activities in PY2

Electronic Submission



B.4 Wet Weather Screening Inspections, Results and Follow-up Activities in PY2

Electronic Submission



B.5 Infrastructure Coordination Meeting

Electronic Submission



Appendix C



C.1 2016 Assessment of the Biology, Habitat and In-Stream Chemistry of Select Streams in Chesterfield County, Virginia

Electronic Submission



C.2 Floatables Monitoring Program SOP

Electronic Submission



C.3 Structural and Source Controls Compliance Monitoring and Tracking for PY2

Electronic Submission

